

What is Claimed is:

1. A coater for preparing coated particles, comprising:
a rotatable disc having a periphery; and
5 a restrictor mounted adjacent to the disc so as to provide a gap for the egress of coated particles.
2. The coater according to claim 1 wherein the restrictor has a portion having a frusto-conical shape so that the height of the space between the disc and the restrictor diminishes
10 with radial distance from the center of the disc.
3. The coater according to claim 1 further comprising a first dispenser for particles disposed above the disc.
- 15 4. The coater according to claim 3 wherein the first dispenser for particles is adapted to dispense a mixture of particles and resin.
5. The coater according to claim 3 further comprising a second dispenser for particles disposed above the disc.
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6. The coater according to claim 1 wherein the surface of the disc facing the restrictor comprises a material with a high coefficient of friction relative to the particles
7. The coater according to claim 6 wherein the material with a high coefficient of
25 friction is polymeric foam.
8. The coater according to claim 1 wherein the gap between the disc and the restrictor is adjustable.
- 30 9. The coater according to claim 1 further comprising a collection bin disposed beneath the disc.

10. The coater according to claim 9 further comprising a barrier to divert coated particles emerging from the gap into the collection bin.

5 11. A coater for preparing coated retroreflective particles, comprising:

a disc having a periphery;

a motor engaging the disc so as to be able to spin the disc;

10 a restrictor mounted adjacent to the disc so as to provide a gap for the egress of coated particles, wherein the restrictor has a portion having a frusto-conical shape so that the height of the space between the disc and the restrictor diminishes with radial distance from the center of the disc;

a first dispenser for dispensing a mixture of sand particles and polymeric resin, the first dispenser disposed above the disc; and

15 a second dispenser for dispensing glass beads, the second dispenser disposed above the disc.

12. The coater according to claim 11 wherein the surface of the disc comprises a material with a high coefficient of friction relative to the particles.

20 13. The coater according to claim 12 wherein the material with a high coefficient of friction is polymeric foam.

14. The coater according to claim 11 wherein the gap between the disc and the restrictor is adjustable.

25 15. The coater according to claim 11 wherein the gap is between about one and three times the diameter of the sand particles.

30 16. The coater according to claim 11 further comprising a collection bin disposed beneath the disc.

17. The coater according to claim 16 further comprising a barrier to divert coated particles emerging from the gap into the collection bin.

18. The coater according to claim 11 wherein the disc is spun by the motor at between about 360 to 720 rpm.

19. A coater for spin coating particles comprising:
a rotating disc having a surface that engages the particles;
a barrier disposed adjacent the disc surface; and
a gap created between the barrier and the disc surface, the gap including:
a first inner portion that varies decreases linearly with the radius of the disc;
and
a second outer portion substantially parallel to the disc, the second portion disposed near the perimeter of the disc.

20. The coater of claim 20, further including a raised structure on the disc surface, wherein the raised structure includes a portion that extends into the gap, whereby coated particles are contacted by the raised structure when the disc is rotating.